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Matrix International (UK) Ltd.

Special Mining & Quarrying considerations & Standards

Brief Mining & Quarrying Industry Overview

Contents

1 Mining & Quarrying Standards

1.1 The ISO ICS 73 Standard

ISO ICS 73 covers exploration, opening-up, development, working of mineral deposits, drilling, construction of mines, mining operations, processing of minerals, coals, lignites, metalliferous minerals and their concentrates, Uranium-containing minerals, Non-metalliferous minerals, including mica, fluorspar, etc., industrial diamonds, mining equipment, electrical apparatus for explosive atmospheres, equipment for processing of minerals including equipment for milling, sizing, separation, flotation, concentration, etc.

Primary concerns of the ISO ICS 73 standard include:
• Quality
• Cost
• Delivery
• Performance
• Safety
• Development
• Production

1.2 Implementation

To enable these improvements, ISO ICS 73 works in tandem with a quality management system such as ISO 9001 which operates in a loop of what can be abstracted to Leadership → Planning → Support → Operation → Performance → Evaluation → Improvement which then loops back round to the Leadership to implement such improvements for the next iterative cycle.

1.3 Limitation and Extentions

Despite a generalised standard, each implementation is different. Hence Matrix develops a specific mode of operation specific to each task borrowing from other complementary standards which may apply to the system aswell as incorporating any standard the customer requests.

This ensures effective work beyond the minimum of the international Mining & Quarring Standards.

2 Mining & Quarring Integration Concerns

2.1 Existing Computer Systems & Protocols

Wheter on site mining or prospecting, an industrial control system must interact with other computerised systems. Integrating with these seamlessly can often require adapting to and under-

standing said bespoke systems.

Hence, Matrix employs a Agile stratgy of work with development operations being flexible to fit around specific or changing customer requirements.

2.2 Maintenence & Support

The Mining & Quarring industry is a demanding one, inso far as it operates 24/7.

To Aid such operation, Matrix offer increased compterised maintence protocols and 24/7 support for all implementations aswell as an extensive method statement portofilio for each project which is delieved along with each implementation to aid on site maintence work to tackle common issues.

3 Upgrading & Adapting & Analysing

As with most industires, the Mining & Quarring industry is everchanging.

To help improve systems, Matrix offers an integrating analysis platform with each product so that the customer can track quality management as per the international standards independantly of Matrix.

This aids the customer in planning upgrades and seeing where one would be benefical. With Computer APIs, rigourous documentation and build in extensibility, upgrades are easy to be do internally or from any external vendor.